

AMENDMENT TO THE CLAIMS

1. (Currently Amended) An aluminum nitride sintered body produced by sintering a powder composition under pressure, ~~of a powder composition the powder composition~~ comprising aluminum nitride and 5 to 30% by weight of at least one sintering aid selected from ~~the group consisting of one or more of the following elements:~~ Nd, Sm, Eu, Er, Dy, Gd, Pr and Yb, per 100% by weight of the powders of aluminum nitride and the sintering aid, wherein the amount of the sintering aid is a conversion value as oxides of the elements, the sintering sintered body that has been subjected to mirror-polishing having a surface roughness R max of 0.2 μm or less and a thermal conductivity of 200 (W/mK) or more.
2. (Original) The aluminum nitride sintered body as defined in claim 1, wherein an amount of the sintering aid remaining in the sintered body is 0.05 to 5% by weight, based on the sintered body.
3. (Currently Amended) The aluminum nitride sintered body as defined in claim 1, wherein a temperature of the sintering temperature is 1800 to [[200]] 2000 °C.
4. (Original) The aluminum nitride sintered body as defined in claim 1, wherein the sintering aid is at least one member selected from the group consisting of Nd, Sm, Eu and Gd.
5. (Original) The aluminum nitride sintered body as defined in claim 1, wherein an amount of Y and/or Ce in the powder composition is 10 % by weight or less as a conversion value of their oxides, based on the powder composition.

6. (Original) The aluminum nitride sintered body as defined in claim 1, wherein an amount of Y and Ce in the powder composition is substantially zero.
7. (Original) The aluminum nitride sintered body as defined in claim 1, wherein the surface roughness R max is 0.15 μm or less.
8. (Currently Amended) A substrate for an electronic device comprising a sintered body having been subjected to mirror-polishing, and a metallic film on the surface of the sintered body, the sintered body being aluminum nitride ~~sintered body~~ produced by sintering a powder composition under pressure, of ~~a powder composition~~ the powder composition comprising aluminum nitride and 5 to 30% by weight of at least one sintering aid selected from ~~the group consisting of~~ one or more of the following elements: Nd, Sm, Eu, Er, Dy, Gd, Pr and Yb, per 100% by weight of the powders of aluminum nitride and the sintering aid, wherein the amount of the sintering aid is a conversion value as oxides of the elements, the ~~sintering~~ sintered body having a surface roughness R max of 0.2 μm or less and a thermal conductivity of 200 (W/mK) or more.
9. (Original) The substrate for an electronic device as defined in claim 8, wherein an amount of the sintering aid in the sintered body is 0.05 to 5% by weight.
10. (Currently Amended) The substrate for an electronic device as defined in claim 8, wherein a temperature of the sintering ~~temperature~~ is 1800 to 2000 °C.

11. (Original) The substrate for an electronic device as defined in claim 8, wherein the sintering aid is at least one member selected from the group consisting of Nd, Sm, Eu and Gd.
12. (Original) The substrate for an electronic device as defined in claim 8, wherein an amount of Y and Ce in the powder composition is substantially zero.
13. (Currently Amended) The substrate for an electronic device as defined in claim 8, wherein the surface roughness R max is 0.15.
14. (Currently Amended) A laser light generating device comprising a substrate having a metallic film thereon and a laser diode mounted on the metallic film, ~~wherein~~ the substrate comprising the metallic film and an aluminum nitride sintered body that has been subjected to mirror-polishing ~~and the metallic film~~, the sintered body being produced by sintering a powder composition under pressure, ~~of a powder composition~~ the powder composition comprising aluminum nitride and 5 to 30% by weight of at least one sintering aid selected from ~~the group consisting of one or more of the following elements:~~ Nd, Sm, Eu, Er, Dy, Gd, Pr and Yb, per 100% by weight of the powders of aluminum nitride and the sintering aid, wherein the amount of the sintering aid is a conversion value as oxides of the elements, the sintering sintered body having a surface roughness R max of 0.2 μm or less and a thermal conductivity of 200 (W/mK) or more.
15. (Original) The laser light generation device as defined in claim 14, wherein an amount of the sintering aid in the sintered body is 0.05 to 5% by weight, based on the sintered body.

16. (Currently Amended) The laser light generation device as defined in claim 14, wherein a temperature of the sintering temperature is 1800 to [[200]] 2000 °C.

17. (Original) The laser light generation device as defined in claim 14, wherein the sintering aid is at least one member selected from the group consisting of Nd, Sm, Eu and Gd.

18. (Original) The laser light generation device as defined in claim 14, wherein an amount of Y and Ce in the powder composition is substantially zero.

19. (Currently Amended) A semiconductor device comprising a substrate having a metallic film thereon and a semiconductor element mounted on the metallic film, wherein the substrate comprising the metallic film and an aluminum nitride sintered body that has been subjected to mirror-polishing, ~~and the metallic film~~ the sintered body being produced by sintering a powder composition under pressure, ~~of a powder composition~~ the powder composition comprising aluminum nitride and 5 to 30% by weight of at least one sintering aid selected from ~~the group consisting of~~ one or more of the following elements: Nd, Sm, Eu, Er, Dy, Gd, Pr and Yb, per 100% by weight of the powders of aluminum nitride and the sintering aid, wherein the amount of the sintering aid is a conversion value as oxides of the elements, the sintering sintered body having a surface roughness R max of 0.2 µm or less and a thermal conductivity of 200 (W/mK) or more.

20. (Currently Amended) An aluminum nitride sintered body produced by sintering a powder composition under pressure, ~~of a powder composition~~ the powder composition consisting

essentially of aluminum nitride and 5 to 30% by weight of at least one sintering aid selected from the group consisting of one or more of the following elements: Nd, Sm, Eu and Gd, per 100% by weight of the powders of aluminum nitride and the sintering aid, wherein the amount of the sintering aid is a conversion value as oxides of the elements, the sintering sintered body that has been subjected to mirror-polishing having a surface roughness R max of 0.2 µm or less and a thermal conductivity of 200 (W/mK) or more.